WHAT IS CLAIMED IS:

1. A semiconductor light-emitting device comprising:

a semiconductor multilayer film including at least two semiconductor layers having mutually different conductivity types;

a first electrode formed on a surface of the semiconductor multilayer film;

a second electrode formed on the opposite surface of the semiconductor multilayer film; and

a metal film formed to be in contact with one of the first and second electrodes and having a thickness greater than or equal to that of the semiconductor multilayer film.

2. The semiconductor light-emitting device of claim 1, wherein the semiconductor multilayer film is made of a Group III-V compound semiconductor containing nitrogen as a Group V element.

3. The semiconductor light-emitting device of claim 1, wherein the metal film has a thickness of 10 μm or more.

4. The semiconductor light-emitting device of claim 1, wherein the metal film is made of gold, copper or silver.

5. The semiconductor light-emitting device of claim 1, wherein the metal film is made of plating.

6. The semiconductor light-emitting device of claim 1, wherein the metal film includes a metal layer located at the side thereof opposite to the semiconductor multilayer

film and having a melting point of 300 °C or less.

7. The semiconductor light-emitting device of claim 6, wherein the metal layer contains tin.

8. The semiconductor light-emitting device of claim 1, wherein said one of the first and second electrodes that is in contact with the metal film has a reflectance of 90 % or higher with respect to light emitted from the semiconductor multilayer film.

9. The semiconductor light-emitting device of claim 1, wherein said one of the first and second electrodes that is in contact with the metal film is formed out of a single layer made of at least one material selected from the group consisting of gold, platinum, copper, silver and rhodium or a multilayer film including at least two of these materials.

10. The semiconductor light-emitting device of claim 1, including a mirror structure formed between the semiconductor multilayer film and the metal film and made of a dielectric or a semiconductor, wherein

the mirror structure has a reflectance of 90 % or higher with respect to light emitted from the semiconductor multilayer film.

11. The semiconductor light-emitting device of claim 10, wherein the mirror structure contains one of silicon oxide, titanium oxide, niobium oxide, tantalum oxide and hafnium oxide or aluminum gallium indium nitride ($Al_xGa_yIn_{1-x-y}N$) (where $0 \leq x, y \leq 1$ and $0 \leq x + y \leq 1$) and is formed to have a refractive index varying cyclically with respect to the wavelength of the light emitted from the semiconductor multilayer film.

12. The semiconductor light-emitting device of claim 1, wherein one of the first and second electrodes provided on the surface of the semiconductor multilayer film opposite to the metal film is transparent.

13. The semiconductor light-emitting device of claim 1, wherein one of the first and second electrodes provided on the surface of the semiconductor multilayer film opposite to the metal film is made of indium tin oxide or a metal containing nickel and having a thickness of 20 nm or less.

14. The semiconductor light-emitting device of claim 1, including a current-confinement film which is made of a dielectric and is formed between the semiconductor multilayer film and the metal film at the peripheries of the semiconductor multilayer film and the metal film.

15. A method for fabricating a semiconductor light-emitting device, comprising the steps of:

a) forming, on a substrate of a single crystal, a semiconductor multilayer film including at least two semiconductor layers having mutually different conductivity types;

b) separating the substrate from the semiconductor multilayer film;

c) forming a first electrode on a surface of the semiconductor multilayer film and forming a second electrode on the opposite surface of the semiconductor multilayer film; and

d) forming a metal film over one of the first and second electrodes.

16. The method of claim 15, wherein the semiconductor multilayer film is made of a Group III-V compound semiconductor containing nitrogen as a Group V element.

17. The method of claim 15, wherein in the step b), irradiating light having a wavelength at which the light passes through the substrate and is absorbed in part of the semiconductor multilayer film is applied onto the surface of the substrate opposite to the semiconductor multilayer film, so that a decomposition layer is formed inside the semiconductor multilayer film by decomposition of part of the semiconductor multilayer film, thereby separating the substrate from the semiconductor multilayer film.

18. The method of claim 17, wherein the irradiating light is pulsing laser light beam.

19. The method of claim 17, wherein the irradiating light is an emission line of a mercury lamp.

20. The method of claim 17, wherein the irradiating light is applied such that the substrate is scanned within the surface thereof.

21. The method of claim 17, wherein the irradiating light is applied, while heating the substrate.

22. The method of claim 15, wherein in the step b), the substrate is removed by polishing, thereby separating the substrate from the semiconductor multilayer film.

23. The method of claim 15, wherein the step a) includes the steps of:

partially forming the semiconductor multilayer film, and then applying irradiating light, having a wavelength at which the light passes through the substrate and is absorbed in the semiconductor multilayer film, onto the surface of the substrate opposite to the semiconductor multilayer film, thereby decomposing part of the semiconductor multilayer film to form a decomposition layer inside the partially formed semiconductor multilayer film; and

forming the rest of the semiconductor multilayer film on the partially formed semiconductor multilayer film, after the decomposition layer has been formed.

24. The method of claim 15, including the step e) of forming another multilayer film made of a dielectric or a semiconductor on the semiconductor multilayer film, and then patterning said another multilayer film, between the steps a) and b),

wherein in the step c), one of the first and second electrodes is formed on the patterned multilayer film, and

in the step d), the metal film is formed on the electrode formed on the patterned multilayer film.

25. The method of claim 24, wherein in the step c), the other one of the first and second electrodes is formed on the surface of the semiconductor multilayer film opposite to the multilayer film after the substrate has been separated from the semiconductor multilayer film.

26. The method of claim 15, including the steps of:

f) bonding a first supporting member in film form for supporting the semiconductor

multilayer film onto the semiconductor multilayer film, the first supporting member being made of a material different from a material constituting the semiconductor multilayer film, between the steps of a) and b); and

g) peeling off the first supporting member from the semiconductor multilayer film, after the step b) has been performed.

27. The method of claim 26, including the steps of:

h) bonding a second supporting member in film form having different properties from those of the first supporting member onto the surface of the semiconductor multilayer film opposite to the first supporting member, before the step g) is performed; and

i) peeling off the second supporting member from the semiconductor multilayer film, after the step g) has been performed.

28. The method of claim 26, wherein the first or second supporting member is a polymer film, a single-crystal substrate made of a semiconductor, or a metal plate.

29. The method of claim 28, wherein the polymer film is provided, at a bonding surface thereof, with an adhesive layer that can be peeled off when heated.

30. The method of claim 15, including the step i) of selectively forming a current-confinement film of a dielectric on the semiconductor multilayer film, before the step c) is performed.

31. A method for bonding a semiconductor light-emitting device, comprising the steps of:

a) forming, on a substrate of a single crystal, a semiconductor multilayer film including at least two semiconductor layers having mutually different conductivity types;

b) bonding a supporting member in film form for supporting the semiconductor multilayer film onto the semiconductor multilayer film, the supporting member being made of a material different from a material constituting the semiconductor multilayer film; and

c) dicing the semiconductor multilayer film and the supporting member together, thereby forming a plurality of chips which are supported by the supporting member having been divided into respective pieces; and

d) performing dice bonding on the chips supported by the supporting member, and then peeling off the supporting member from the chips.

32. The method of claim 31, wherein the supporting member is a polymer film.

33. The method of claim 31, wherein the polymer film is provided with, at a bonding surface thereof, an adhesive layer which can be peeled off when heated.